N° 15,604 A.D. 1893

Date of Application, 17th Aug., 1893—Accepted, 7th Oct., 1893

COMPLETE SPECIFICATION.

An Improved Means for Boiling Water and Obtaining an Infusion of Tea or other Beverage at any Prearranged Time without the Aid of an Attendant.

We, John Thomas Hardman, of 8 Granville Street, Clerk, and James Alfred Greenhalgh, of 5 Granville Street, Tinman, both in Regent Road, Salford, in the County of Lancaster, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to a means whereby water may be boiled, and tea or other beverage prepared automatically at any prearranged time: the object of this invention is primarily to enable a person who requires to attend work or other business, at any early hour in the morning to have a cup of tea or the like prepared without attendance and ready for consumption previous to departure, but the same apparatus may be employed for domestic purposes at other times.

We attain this object by the means herein after described and as illustrated in the accompanying two sheets of drawings in which

Fig. 1 is a front elevation and Fig. 2 a side view of apparatus constructed according to our invention and set ready for use:

Fig. 3 is a plan of the ring *e* forming the top of the frame A, and Fig. 4 a plan of the bar *d* forming bottom of said frame:

Fig. 5 is a side view of the apparatus when the water has boiled and the beverage is prepared.

In this invention, to any convenient preferably portable stand such as *a*, we affix vertical standards *b* and b^1 upon which a skeleton frame A may slide; said standards may be stayed by horizontal bars *c* and c^1 or by other suitable supports. We form the sliding frame A by means of the lower horizontal flat bar *d* and the upper horizontal ring *e* which are firmly secured to each other by the distance rods *f* and f^1, and with holes at d^1, d^2, e^1 and e^2 through which to pass the vertical standards *b* and b^1. The aforesaid frame A rests on springs such as *g* and g^1 placed on the standards *b* and b^1 under the lower horizontal bar *d*.

We form the upper horizontal ring *e* of a size to receive a metallic kettle such as *h* placed therein and supported on the inner edge of the aforesaid ring by the projecting rim h^1 formed on the upper edge of said kettle. We construct the lower horizontal bar *d* in the form shown in Fig. 4, which represents a plan view of said bar; the recess d^3 is intended to permit the gas burner *j* to be placed vertically immediately under the bottom of the kettle, and the groove d^4 is for the purpose of holding said burner in position by means of the hook j^1: the gas jet *j* which is preferably in the form of a Bunsen burner, is attached to the gas pipe *k* by means of a joint and tap k^1 that is constructed to permit the free passage of gas when the aforesaid gas jet or burner is in a vertical position as in Figs. 1 and 2, but will cause the passage of gas to be stopped when said gas jet or burner is placed in a horizontal position as represented in Fig. 5.

The supply of gas is obtained through a flexible tube *l* and is regulated by the tap *m* to which a ball or weighted lever m^1 is attached.

On the shelf *n*, we place an alarm clock *q* of ordinary construction, the supports *p* being placed in the stops *r* to prevent lateral movement by vibration.

The handle p^1 for winding the alarm is formed with a tail piece *s* that will engage with the stud r^2 which is connected to the upper end of the rod *t*.

We attach a supporting bracket r^1 to the lower end of the rod *t* upon which the ball end of the lever m^1 may rest. We construct the kettle *h* with a fixed lid in which we form a screwed socket h^2 for fixing therein a syphon *u*; said kettle may be filled by means of a screwed socket and plug h^3 and provided with a handle h^4.

[*Price* 8*d*.]

In carrying our invention into effect, we set the indicator *x* of the alarm clock *q* to the time it is required to boil the water in the kettle *h*, and wind the clock in the usual way; we place the clock on the shelf *n* with the supports *p* in the stops *r* and turn the rod *t* so that the supporting bracket r^1 may be in a position to rest thereon the ball end of the lever *m* as shown in Fig. 2.

The stud r^2 will thus be in contact with the tail piece *s* of the handle p^1 which is employed for winding the alarm mechanism of the clock *q*.

The position of the lever *m* as shown in Figs. 1 and 2 will permit a small quantity of gas to pass from the supply pipe *l* through the tap *m* to the burner *j* which is lighted and produces a scarcely perceptible flame. The kettle *h* is filled with water through the plug h^3, the weight of the water causing the springs *g* and g^1 to be compressed thereby lowering the frame A.

The gas burner *j* having previously been placed in a vertical position, the hook j^1 will engage with the groove d^4 in the bar *d* as shown in Fig. 2.

If tea is the beverage required, a tea pot such as *v* in which tea has been put, is placed under the outer end of the syphon *u*. The ordinary cover may be removed and a metal plate v^1 with a hole therein, through which to pass the end of said syphon may be employed as a cover.

When the time has arrived that the alarm is sounded, the unwinding of the alarm mechanism will revolve the handle p^1 and cause the tail piece *s* to kick the stud r^2, thereby turning the rod *t*, causing the supporting bracket r^1 to be withdrawn from under the ball end of the lever *m* which will fall to the bottom of the stand *a*, thereby permitting the gas to pass freely through the tap *m* and a flame to be produced under the kettle *h*. When the water boils, the steam produced causes the water to be forced over the upper bend of the syphon *u* when the water will be drawn off into the teapot *v* or other receptacle: the weight of the kettle being thereby lessened, the springs *g* and g^1 will lift the frame A until the hook j^1 is disengaged, when the gas burner *j* will be caused to fall down to the position shown in Fig. 5 by means of the weight j^2, at the same time closing the tap k^1 and thereby extinguishing the gas flame.

By these means an infusion of tea or other beverage may be obtained without requiring personal attendance.

The kettle *h* may also be employed as a bronchitis kettle by the application of an extended spout in lieu of the syphon *u*, the gas being turned off by the burner *j* in the same manner as herein previously described.

An independent light may be had if required, by means of the gas burner *y* regulated by hand by the tap y^1.

We desire it to be understood that we do not claim as part of our invention, any form of clockwork mechanism, or the particular form of gas burner herein before mentioned, but

Having now particularly described and ascertained the nature of this our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1st. For obtaining an infusion of tea or other beverage at any prearranged time without the aid of an attendant, the combination of ordinary alarm clock mechanism with mechanism employed for opening gas taps, and the delivery of boiling water into a teapot or other receiver, in the manner and for the purpose substantially as herein before described.

2nd. The mechanism for closing gas taps after the delivery of boiling water or other fluid into a receiver, in the manner and for the purpose substantially as herein before described.

Dated this 16th day of August 1893.

THOMAS PRESCOTT,
53, Arcade Chambers, St. Mary's Gate, Manchester,
Agent for the Applicants.

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FIG. 1.

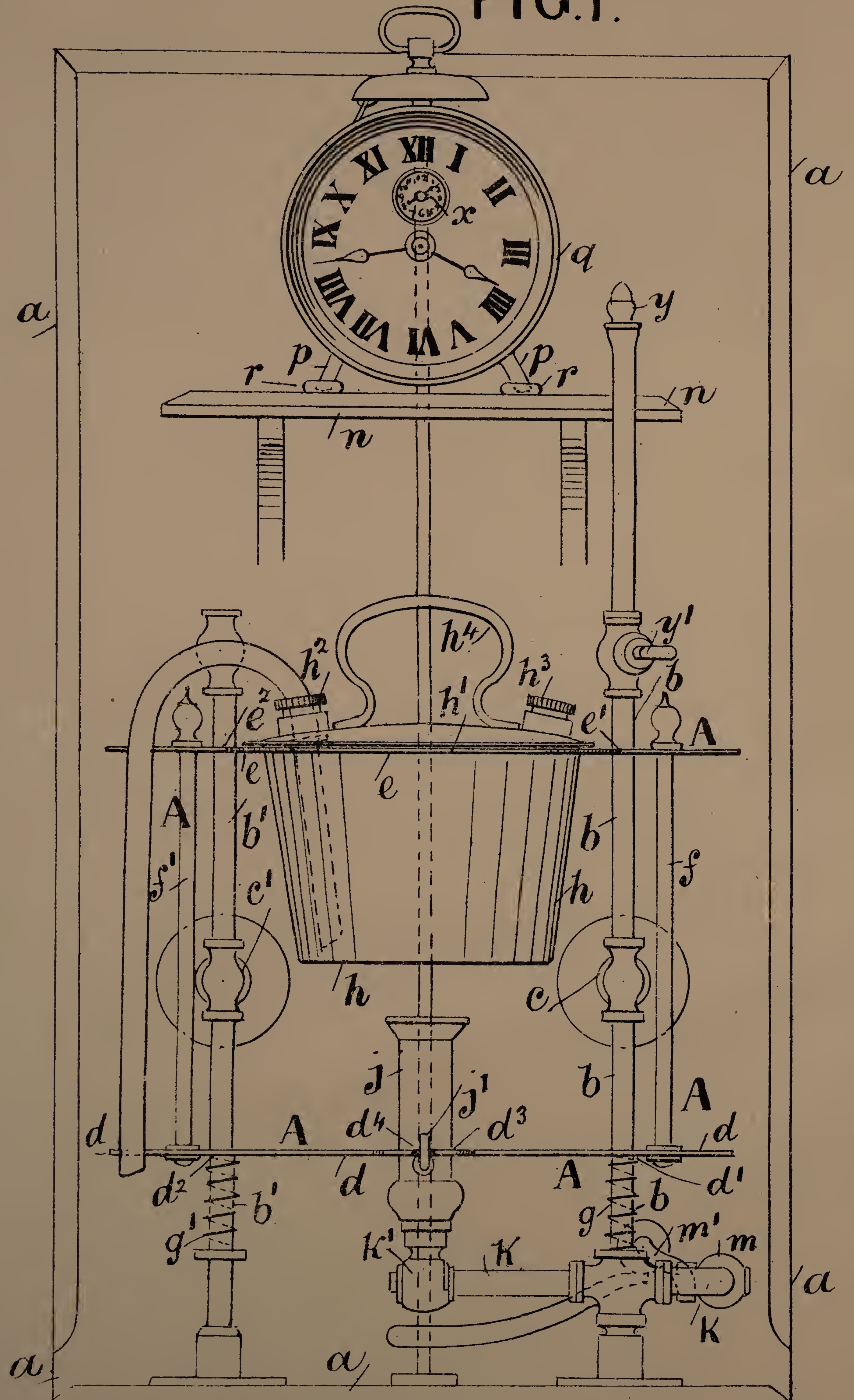

FIG. 2.

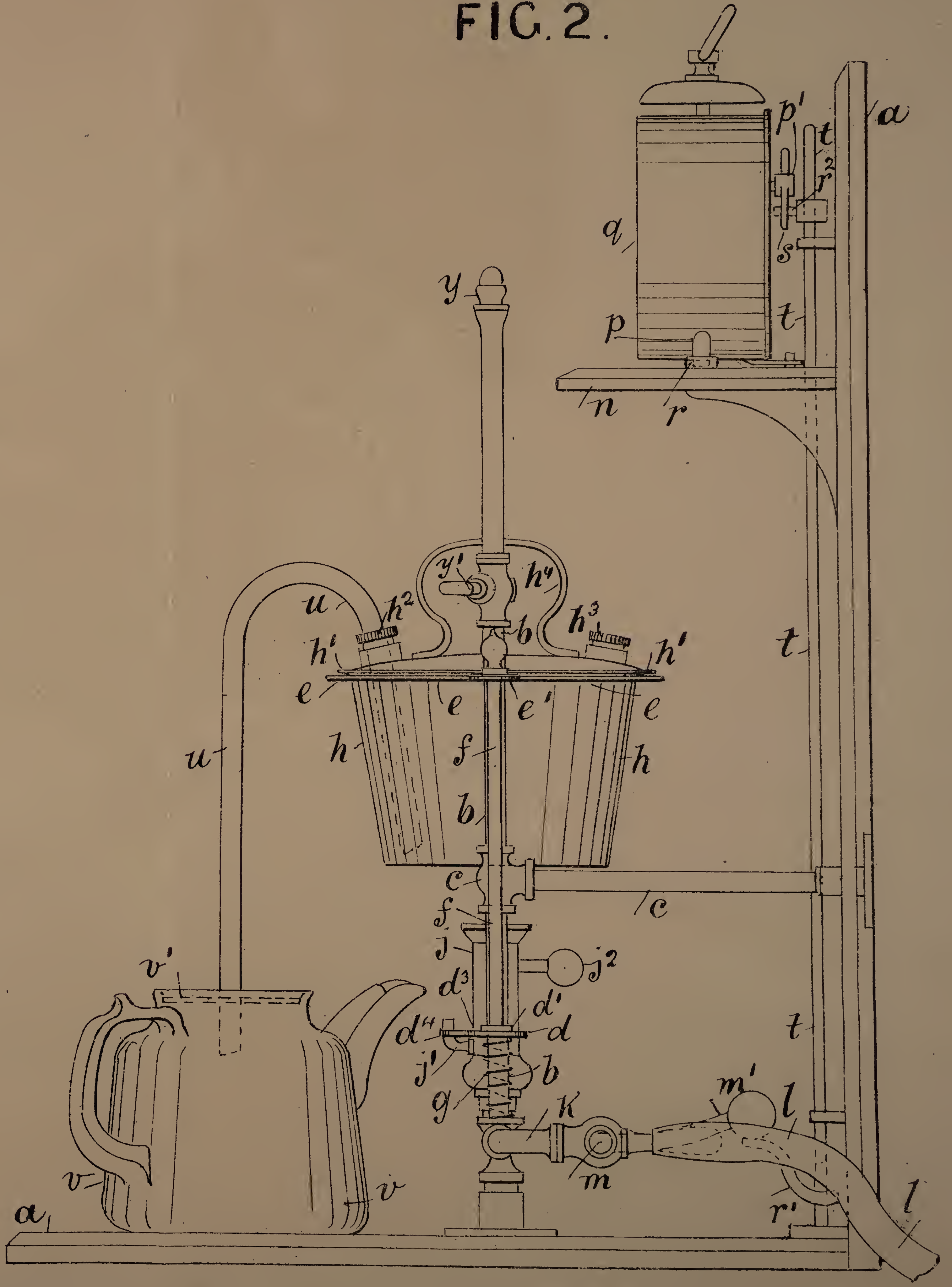

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FIG.3.

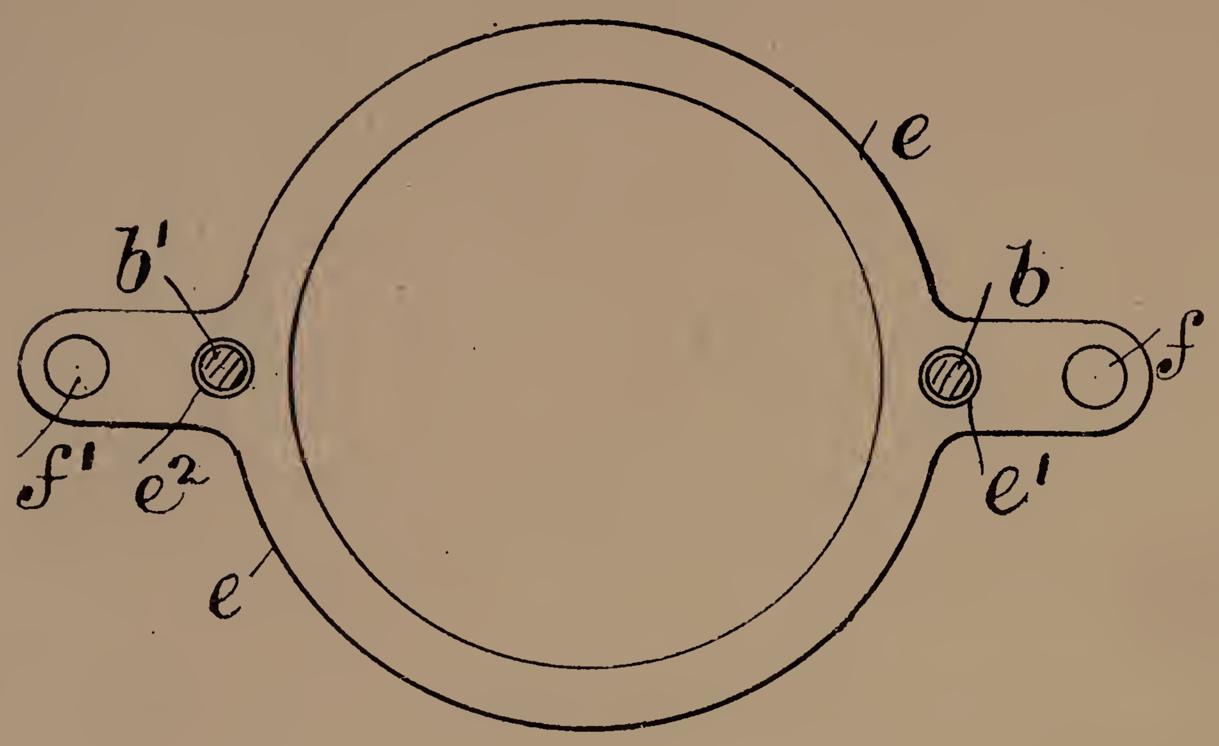


FIG.4.

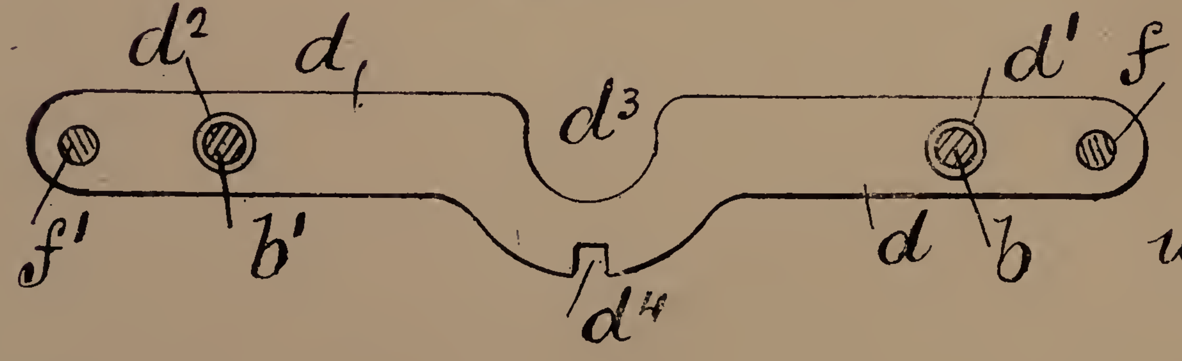
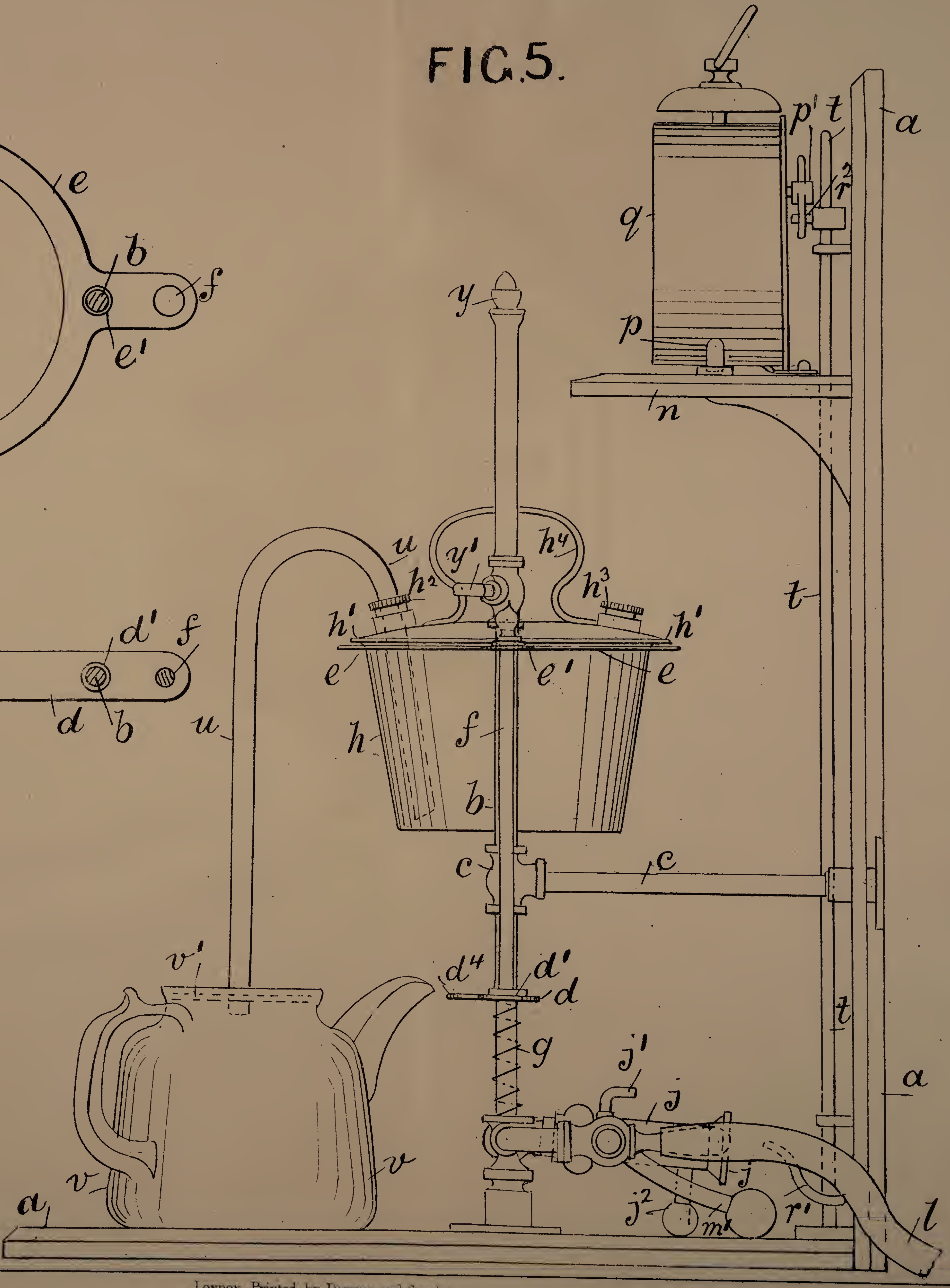


FIG.5.



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